Volume 1

Contents

Prologue
C. K. Kao 1

Fiber Optics in Japan
T. Nakahara *and* H. Yanai 3

Review of Fiber Optical Communications
Larry L. Campbell 21

Fiber Optic Cables for Undersea Communications
George Wilkins 39

Periodic Corrugated Dielectric Waveguides
W. Streifer, D. R. Scifres, *and* R. D. Burnham 63

Numerical Evaluation of the Impulse Response of Multimode Optical Fibers
Jacques A. Arnaud 77

Worldwide Business Opportunities in Fiber Optic Communications
Jeff D. Montgomery 101

Strength Considerations of Optical Wavelength Fibers
Ben Justice 115

An Eight-Terminal Fiber Optics Data Bus Using Tee Couplers
D. E. Altman and H. F. Taylor 135

Coupling Methods in Prospective Single-Mode Fiber Integrated Optics Systems: A Progress Report
H. P. Hsu and W. S. C. Chang 153

Bend Radiation in Optical Fibers
A. Q. Howard, Jr. 181

Fiber Optics Cost Models for the A-7 Aircraft
R. A. Greenwell 197

Review of Integrated Optics
H. Kogelnik 227

Crosstalk in a Bidirectional Optical Fiber
W. H. Wells 243

Application of the Steiner Street Problem to a More Economical Data Bus
R. L. Gallawa 289

Coupled-Mode Theory of a Fiber Laser-Amplifier
Federico Capasso and Paolo di Porto 313

Fiber Optics Market in Japan
Yoshio Matsuda 327

Injection Laser Sources for Fiber Optic Communications
R. B. Gill, T. E. Stockton, and P. J. Schneider 335

GaInAsP/InP Double-Heterostructure Lasers for Fiber Optic Communication
J. J. Hsieh and C. C. Shen 357

Low-Noise Fiber Optics Receiver with Super-Beta Bipolar Transistors
Siegfried G. Knorr, Osman Kaldirim, and C. Yeh 369

Probability of Fatigue Failure in Glass Fibers
J. E. Ritter, Jr. 387

Dispersion Equalization in Ring Index Fibers
P. F. Checcacci, R. Falciai, and A. M. Scheggi 401

GigaHertz Modulators Using Bulk Acousto-Optic Interactions in Thin-Film Waveguides
G. B. Brandt, M. Gottlieb, and R. W. Weinert 417

Author Index 431

Title Index 433

Author Index

Altman, D. E.; and Taylor, H. F., An Eight Terminal Fiber Optics Data Bus Using Tee Couplers, Vol. 1, no. 2, p. 135.

Arnaud, J. A., Numerical Evaluation of the Impulse, Vol. 1, no. 1, p. 77.

Brandt, G. B.; Gottlieb, M.; and Weinert, R. W., GigaHertz Modulators Using Bulk Acousto-Optic Interactions in Thin-Film Waveguides, Vol. 1, no. 4, p. 417.

Burnham, R. D.; Steifer, W.; and Scifres, D. R., Periodic Corrugated Dielectric Waveguides, Vol. 1, no. 1, p. 63.

Campbell, Larry L., Review of Fiber Optical Communications, Vol. 1, no. 1, p. 21.

Capasso, Federico; and di Porto, Paolo, Couple-Mode Theory of a Fiber Laser Amplifier, Vol. 1, no. 3, p. 313.

Chang, W. S. C.; and Hsu, H. P., Coupling Methods in Prospective Single-Mode Fiber Integrated Optics Systems: A Progress Report, Vol. 1, no. 2, p. 153.

Checcacci, P. F.; Falciai, R.; and Scheggi, A. M., Dispersion Equalization in Ring Index Fibers, Vol. 1, no. 4, p. 401.

Falciai, R.; Checcacci, P. F.; and Scheggi, A. M., Dispersion Equalization in Ring Index Fibers, Vol. 1, no. 4, p. 401.

Gallawa, R. L., Application of the Steiner Street Problem to a More Economical Data Bus, Vol. 1, no. 3, p. 289.

Gill, R. B.; Stockton, T. E.; and Schneider, P. J., Injection Laser Sources for Fiber Optic Communications, Vol. 1, no. 4, p. 335.

Gottlieb, M.; Brandt, G. B.; and Weinert, R. W., GigaHertz Modulators Using Bulk Acousto-Optic Interactions in Thin-Film Waveguides, Vol. 1, no. 4, p. 417.

Greenwell, R. A., Fiber Optics Cost Models for the A-7 Aircraft, Vol. 1, no. 2, p. 197.

Howard, A. Q. Jr., Bend Radiation in Optical Fibers, Vol. 1, no. 2, p. 181.

Hsieh, J. J.; and Shen, C. C., GaInAsP/InP Double-Heterostructure Lasers for Fiber Optic Communications, Vol. 1, no. 4, p. 357.

Hsu, H. P.; and Chang, W. S. C., Coupling Methods in Prospective Single-Mode Fiber Integrated Optics Systems: A Progress Report, Vol. 1, no. 2, p. 153.

Justice, Ben, Strength Considerations of Optical Wavelength Fibers, Vol. 1, no. 2, p. 115.

Kaldirim, Osman; Knorr, Siegfried; and Yeh, C., Low-Noise Fiber Optics Receiver with Super-Beta Bipolar Transistors, Vol. 1, no. 4, p. 369.

Kao, C. K., Prologue, Vol. 1, no. 1, p. 1.

Knorr, Siegfried; Kaldirim, Osman; and Yeh, C., Low-Noise Fiber Optics Receiver with Super-Beta Bipolar Transistors, Vol. 1, no. 4, p. 369.

Kogelnik, H., Review of Integrated Optics, Vol. 1, no. 3, p. 227.

Matsuda, Yoshio, Fiber Optics Market in Japan, Vol. 1, no. 4, p. 327.

Montgomery, J. D., Worldwide Business Opportunities in Fiber Optic Communications, Vol. 1, no. 1, p. 101.

Nakahara, T; and Yanai, H., Fiber Optics in Japan, Vol. 1, no. 1, p. 3.

diPorto, Paolo; and Capasso, Federico, Coupled-Mode Theory of a Fiber Laser-Amplifier, Vol. 1, no. 3, p. 313.

Ritter, J. E. Jr., Probability of Fatigue Failure in Glass Fibers, Vol. 1, no. 4, p. 387.

Scheggi, A. M.; Falciai, R.; and Checcacci, P. F., Dispersion Equalization in Ring Index Fibers, Vol. 1, no. 4, p. 401.

Scifres, D. R.; Burnham, R. D.; and Steifer, W., Periodic Corrugated Dielectric Waveguides, Vol. 1, no. 4, p. 417.

Schneider, P. J.; Gill, R. B.; and Stockton, T. E., Injection Laser Sources, Vol. 1, no. 4, p. 335.

Shen, C. C.; and Hsieh, J. J., GaInAsP/InP Double-Heterostructure Lasers for Fiber Optic Communications, Vol. 1, no. 4, p. 357.

Stockton, T. E.; Gill, R. B.; and Schneider, P. J., Injection Laser Sources, Vol. 1, no. 4, p. 335.

Streifer, W.; Scifres, D. R.; Burnham, R. D., Periodic Corrugated Dielectric Waveguides, Vol. 1, no. 1, p. 63.

Taylor, H. F.; and Altman, D. E., An Eight-Terminal Fiber Optics Data Bus Using Tee Couplers, Vol. 1, no. 2, p. 135.

Weinert, R.; Brandt, G. B.; and Gottlieb, M., GigaHertz Modulators Using Bulk Acousto-Optic Interactions in Thin-Film Waveguides, Vol. 1, no. 4, p. 417.

Wells, W. H., Crosstalk in a Bidirectional Optical Fiber, Vol. 1, no. 3, p. 243.

Wilkins, George A., Fiber Optic Cables for Undersea Communications, Vol. 1, no. 1, p. 39.

Yanai, H.; and Nakahara, T.; Fiber Optics in Japan, Vol. 1, no. 1, p. 3.

Yeh, C.; Kaldirim, Osman; and Knorr, Siegfried, Low-Noise Fiber Optics Receiver with Super-Beta Bipolar Transistors, Vol. 1, no. 4, p. 369.

Title Index

Application of the Steiner Street Problem to a More Economical Data Bus, by R. L. Gallawa, Vol. 1, no. 3, p. 289.

Bend Radiation in Optical Fibers, by A. Q. Howard, Jr., Vol. 1, no. 2, p. 181.

Coupled-Mode Theory of a Fiber Laser Amplifier, by Federico Capasso and Paolo di Porto, Vol. 1, no. 3, p. 313.

Coupling Methods in Prospective Single-Mode Fiber Integrated Optics Systems: A Progress Report, by H. P. Hsu and W. S. C. Chang, Vol. 1, no. 2, p. 153.

Crosstalk in a Bidirectional Optical Fiber, by W. H. Wells, Vol. 1, no. 3, p. 243.

Dispersion Equalization in Ring Index Fibers, by P. F. Checcacci, R. Falciai, and A. M. Sheggi, Vol. 1, no. 4, p. 401.

An Eight Terminal Fiber Optics Data Bus Using Tee Couplers, by D. E. Altman and H. F. Taylor, Vol. 1, no. 2, p. 135.

Fiber Optic Cables for Undersea Communications, by George A. Wilkins, Vol. 1, no. 1, p. 39.

Fiber Optics Cost Models for the A-7 Aircraft, by R. A. Greenwell, Vol. 1, no. 2, p. 197.

Fiber Optics in Japan, by T. Nakahara and H. Yanai, Vol. 1, no. 1, p. 3.

Fiber Optics Market in Japan, by Yoshio Matsuda, Vol. 1, no. 4, p. 327.

GaInAsp/InP Double-Heterostructure Lasers for Fiber Optic Communications, by J. J. Hsieh and C. C. Shen, Vol. 1, no. 4, p. 357.

GigaHertz Modulators Using Bulk Acousto-Optic Interactions in Thin Film Waveguides, by G. B. Brandt, M. Gottlieb, and R. W. Weinert, Vol. 1, no. 4, p. 417.

Injection Laser Sources for Fiber Optic Communications, by R. B. Gill, T. E. Stockton and P. J. Schneider, Vol. 1, no. 4, p. 335.

Low-Noise Fiber Optics Receiver with Super-Beta Bipolar Transistors, by Siegfried G. Knorr, Osman Kaldirim, and C. Yeh, Vol. 1, no. 4, p. 369.

Numerical Evaluation of the Impulse Response of Multimode Optical Fibers, by Jacques A. Arnaud, Vol. 1, no. 1, p. 77.

Periodic Corrugated Dielectric Waveguides, by W. Strifer, D. R. Scifres and R. D. Burnham, Vol. 1, no. 1, p. 63.

Probability of Fatigue Failure in Glass Fibers, by J. E. Ritter, Jr., Vol. 1, no. 4, p. 387.

Prologue, by C. K. Kao, Vol. 1, no. 1, p. 1.

Review of Fiber Optical Communications, by Larry L. Campbell, Vol. 1, no. 1, p. 21.

Review of Integrated Optics, by H. Kogelnik, Vol. 1, no. 3, p. 227.

Strength Considerations of Optical Wavelength Fibers, by Ben Justice, Vol. 1, no. 2, p. 115.

Worldwide Business Opportunities in Fiber Optic Communications, by Jeff D. Montgomery, Vol. 1, no. 1, p. 101.